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Statement of Basis

Proposed Remedy of No Further Action

At

Former Engelhard West, Inc.
5510 East La Palma Avenue
Anaheim, CA
Orange County

Prepared by

Geology, Permitting, and Corrective Action Branch
Hazardous Waste Management Program
Department of Toxic Substances Control

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Section 1: Introduction

The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) has prepared this Statement of Basis to explain the proposed Corrective Action remedy for the former Engelhard West, Inc. (Engelhard) precious metals recovery facility (Site) located at 5510 East La Palma Avenue in Anaheim, California (Figure 1).

DTSC is issuing this Statement of Basis as part of its public participation responsibilities under Chapter 6.5 of the California Health and Safety Code, Hazardous Waste Control Act. In addition to this Statement of Basis, DTSC has prepared the following documents as part of the public review process to seek public comments on the proposed remedy:

- Notice of Exemption that analyzes environmental impacts under the California Environmental Quality Act (CEQA).
- Fact Sheet that summarizes the Corrective Action Remedy Selection and provides a notice of public comment period.

A Site investigation was conducted in accordance with the corrective action process under the Resource Conservation and Recovery Act (RCRA). This Statement of Basis summarizes the information in the *Facility Investigation Report* dated June 25, 2002, the *Report of Additional Investigation and Soil Removal* dated September 24, 2002, and the *Baseline Human Health Risk Assessment* dated October 2002. Additional information on the Site and Corrective Action work can be found in DTSC's administrative record.

After the public comment period, DTSC may modify the proposed "No Further Action" remedy or select another remedy based on new information or public comments. The public is encouraged to review and comment on this Statement of Basis and the proposed remedy during the 45-day public comment period which begins August 21, 2006 and ends October 5, 2006. DTSC will select a final remedy for the Site only after the public comment period has ended and any comments made have been reviewed and considered.

Section 2: Facility Background

2.1 Facility Description and History

The Site consists of approximately 4.5 acres located in an industrial/commercial area of Anaheim near the Santa Ana River. During Engelhard's operation of the Site, it was surrounded by a perimeter fence and had one - 31,500 square feet building located at the northeast corner of the site. The building was flanked on the west and south sides by chain-link-fenced enclosures with berms and concrete floors. These enclosures were used as container storage areas. North and east of the building were asphalt-paved driveways and parking areas. There are also fenced and enclosed asphalt-paved parking areas to the south of the building (Refer to Figure 2 for an overview of the former Site features).

Engelhard closed the Site in 2000. All operations ceased and the facility was vacated. The Site is currently owned and operated by Family Tree Produce for light industrial purposes. Currently, there are no plans to alter the zoning or usage of the property.

Under Engelhard, the Site was used for recovery and refinement of gold and other precious metals. During operation, various feed streams containing precious metal residues were shipped into Engelhard for chemical or thermal processing to recover the residue. Several different mineral acids and cyanide solutions were used during the recovery process.

Liquid and solid waste for the recovery and refining processes were received in various containers (primarily 55-gallon drums) and stored in the outside containment areas along the western and southern proportions of the building. The berms and concrete floors of the containment areas are sloped to collection sumps. Spills and storm water collected in the sumps were pumped to holding tanks for treatment in the wastewater treatment system. This treatment system was also located along the south side of the building within a paved and bermed area. The container storage areas (Areas 14 and 15 in Section 3 below) underwent RCRA closure as part of a separate regulatory process. The areas were verified clean closed on June 28, 2006.

2.2 Environmental Conditions

The area in which the Site is located is generally characterized as consisting of alluvial deposits associated with deposition along the Santa Ana River. The deposits consist of sand, gravel, and silt derived from the surrounding hills and mountains, and from the upper part of the Santa Ana River Basin drainage. Beneath the alluvial deposits, the Site is underlain by Miocene marine sedimentary rocks, which are in turn underlain by Mesozoic plutonic and metamorphic rocks. The Site is located at the north end of the Santa Ana Mountains, part of the Interior Mountain-Valley section of the Peninsular Range physiographic province of Southern California. Based on groundwater data collected from on-site monitoring wells between 2000 and 2001, the depth to groundwater is approximately 14 to 16 feet below ground surface (bgs) and exhibits a shallow gradient directed toward the northwest. Sediments encountered (in borings drilled to a maximum depth of 31.6 feet bgs) are predominantly fine- to coarse-grained sands composed primarily of disaggregated granitic material.

Section 3: RCRA Facility Assessment

DTSC met several times with the facility and conducted a site visit in mid 2001 in order to identify and evaluate areas where releases of hazardous materials may have occurred. As a result of the discussions and site visit, a sampling and analysis plan (SAP) was prepared to evaluate the environmental condition of the Site by analyzing soil and groundwater at locations of potential concern. Under the SAP, 18 areas were identified for investigation. These 18 areas are indicated on Figure 2, and are listed below:

1. Electroless Plating lab
2. Equipment/Maintenance Area
3. Analytical Laboratory
4. Potassium Gold Cyanide Room
5. Refinery
6. Electrolytic Cell Room
7. Melt Room
8. Pulp Room
9. Warehousing Area
10. Shipping and Receiving
11. Industrial Waste Water Line and Sewer
12. Waste Water Treatment Area
13. Strip Line Area
14. Liquid Container Storage Area
15. Solids Container Storage Area
16. Parking/Drainage, and Roll-off Area
17. Other Outdoor Areas
18. Background Sampling Areas

The SAP is part of the RCRA Facility Investigation detailed in the *Facility Investigation Workplan* (Kennedy/Jenks, 2001). Further discussion of the *Facility Investigation Workplan* can be found in Section 4 of this Statement of Basis.

Section 4: RCRA Facility Investigation

4.1 Initial Investigation

The *Facility Investigation Report* detailed the results of the environmental investigation carried out in late 2001 under Kennedy/Jenks Consultants (Kennedy/Jenks, 2002a). Soil gas, soil, and groundwater were sampled at the areas of concern at the facility. Based on the findings of this report, concentrations of chemicals of concern greater than background were detected in the following areas (see Figure 2 for the Site Layout):

- Aromatic hydrocarbons on the west side of the building (directly west of the former solids container storage area and near the former buried industrial waste water line).
- Arsenic on the south side of the building (within the former wastewater treatment area).
- Arsenic on the west side of the building (within the former liquid container storage area and former west drum storage area).
- Cadmium in the southern part of the building (within the former analytical laboratory).
- Various metals along the swale in the southwest portion of the parking lot.
- Chloroform in the southern part of the building (within the former analytical laboratory).
- TPH on the west side of the building (near the former air compressor).
- Toluene directly west of the former solids container storage area and former west drum storage area).
- After reviewing the results of the investigation, DTSC concluded in a teleconference with Kennedy/Jenks in May 2002 that an additional investigation would be required. The investigation would help to better assess the extent of impact in the following areas: chloroform and cadmium on the southern part of the building beneath Area 3 - Analytical Laboratory, arsenic on the south side of the building near the Waste Water Treatment Area (Area 12), and toluene directly west of the former solids container storage area (Area 15).

4.2 Additional Investigation

Additional investigation was carried out in mid-2002. The results of the investigation were presented in the *Report of Additional Investigation and Soil Removal* (Kennedy/Jenks, 2002b). The additional investigation concluded that the horizontal and vertical extent of contamination at the aforementioned areas of concern has been delineated.

Due to time constraints and plans for the construction of a truck ramp by the new owner, Engelhard chose to proactively excavate and remove arsenic-impacted soil without DTSC oversight at Area 12 (the former wastewater treatment area) before formal risk-based cleanup levels for arsenic were established with DTSC. Based on laboratory analytical results of the excavated soil, the soil was not a hazardous waste and was disposed of at American Remedial Technologies, an approved disposal facility in Lynwood, CA. This activity took place in mid 2002 and was documented in the *Report of Additional Investigation and Soil Removal* (Kennedy/Jenks, 2002b).

Section 5: Summary of Facility Risks

Following completion of facility investigation activities in mid 2002, a baseline risk assessment was performed by Nexus Environmental Services (Nexus) to determine the potential for adverse health effects from exposure to hazardous constituents at the Site. The main risk driver at the Site is chloroform, which was released at the Analytical Lab (Area 3). In a memorandum dated March 11, 2005, DTSC calculated an exposure risk from chloroform to be in the range of 2×10^{-6} to 4×10^{-6} . This risk is within the range DTSC considers to be acceptable for unrestricted use of the property. Therefore, DTSC has determined that no further action is needed at the Site under RCRA Corrective Action.

Section 6: Scope of Corrective Action

Based on the investigation and human health risk assessment, DTSC has determined that the Site is suitable for unrestricted reuse without further corrective action.

Section 7: Proposed Remedy and Evaluation

DTSC evaluates corrective measures remedies based on the following four standards (1-4) and five decision factors (5-9):

1. Be protective of human health and the environment
2. Attains media cleanup standards
3. Controls the source of release so as to reduce or eliminate, to the extent practical, further releases that might pose a threat to human health and/or the environment.
4. Meets all applicable waste management requirements
5. Short-term effectiveness and long-term effectiveness
6. Reduction of toxicity, mobility, or volume
7. Long-term reliability;
8. Implementability
9. Cost

The table below summarizes analysis of the proposed “no further action” remedy.

<u>Parameter</u>	<u>Proposed Remedy</u> No Further Action
1) Be protective of human health and the environment	The proposed remedy is protective of human health and the environment based on the result of the risk assessment conducted at the Site for unrestricted land use. No exposure pathway to groundwater is present at the site; therefore no health risk from groundwater is present. The risk from soil and soil gas pathways meets DTSC’s criteria for unrestricted use.
2) Attains media cleanup standards	The cleanup standard at the Site is to be protective of human health under an unrestricted land use scenario. According to the risk assessment, the proposed remedy attains media cleanup standards.
3) Controls the source of release so as to reduce or eliminate, to the extent practical, further releases that might pose a threat to human health and/or the environment	Not applicable since sources posing an unacceptable threat to human health risk or the environment were not encountered.
4) Meets all applicable waste	The proposed remedy will not generate wastes to

<u>Parameter</u>	<u>Proposed Remedy</u> No Further Action
management requirements	be managed.
5) Short-term and long-term effectiveness	The proposed remedy is effective for both short-term and long-term protection.
6) Reduction of toxicity, mobility, or volume	The risk assessment indicated that such a reduction is not necessary.
7) Long-term reliability	Since nothing will be done and the remaining contaminants are within health goals at the site, the proposed remedy will have long-term reliability.
8) Implementability	The proposed remedy requires no additional implementation.
9) Cost	There are no costs associated with the proposed remedy.

In summary, the proposed remedy of “No Further Action” meets all remedy selection criteria. Based on the available information from the site investigation reports and the risk assessment, DTSC believes that “No Further Action” is required at the site.

Section 8: Public Participation

DTSC is now formally soliciting public comments on this Statement of Basis and the proposed remedy of “No Further Action” during a 45-day comment period. The public comment period begins August 21, 2006 and ends October 5, 2006. Public input on the proposed remedy is an important contribution to the selection process. DTSC will make a final decision on the proposed remedy after comments from the public are received.

The public notice package for this Statement of Basis can be viewed at:

Canyon Hills Public Library
400 Scout Trail
Anaheim Hills, CA 92807
714-974-7630
M-Th 10:00 am to 9:00 pm
F-Sa 10:00 am to 6:00 pm

The complete administrative record is available for public review at:

Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630
714-484-5300
M-F 8:00 am to 5:00 pm

All written comments on this Statement of Basis and the proposed remedy must be received at the following address no later than October 5, 2006. Please submit written comments to:

Mr. Robert Romero, Project Manager
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, CA 90630
714-484-5316
rromero1@dtsc.ca.gov

To obtain additional information or if you have questions regarding the former Engelhard facility, please contact Mr. Robert Romero at 714-484-5316 or rromero1@dtsc.ca.gov.

References

Kennedy/Jenks Consultants, 2001. Facility Investigation Workplan. Engelhard West, Inc. Facility. 5510 E. La Palma Avenue, Anaheim, California. 14 November 2001.

Kennedy/Jenks Consultants, 2002a. Facility Investigation Report. Engelhard West, Inc. Facility, 5510 E. La Palma Avenue, Anaheim, California. 25 June 2002.

Kennedy/Jenks Consultants, 2002b. Report of Additional Investigation and Soil Removal. Engelhard West, Inc. Facility, 5510 E. La Palma Avenue, Anaheim, California. 24 September 2002.

Nexus Environmental Services, 2002. Baseline Human Health Risk Assessment. Engelhard West Incorporated. October 2002.

Department of Toxic Substances Control, Memorandum on Baseline Human Health Risk Assessment, Engelhard West, Inc. Facility, 11 March 2005.